

WHAT IS CLAIMED IS:

1. An electronic trip unit for a circuit breaker comprising:
a programmed microprocessor;
a module plug in removable signal communication with the microprocessor,
the module plug includes a program identifier;
wherein the microprocessor recognizes the program identifier and accesses a
program of a plurality of programs external to the module plug based on the program
identifier;
wherein the microprocessor responds to the program to perform a function
identified by the module plug; and
wherein the function identifiable by the module plug includes a
communications function, a load monitoring function, a non-tripping ground fault
alarm function, a flag function, or any combination comprising at least one of the
foregoing functions.
2. The electronic trip unit of claim 1, wherein the module plug includes a
threshold adjuster and a display.
3. The electronic trip unit of Claim 2, wherein the flag function includes a
trip target flag function that displays a trip target, a load monitoring flag function that
identifies and displays which phase has exceeded a load threshold, a ground fault flag
function that displays the existence of a ground fault condition, a communications flag
function that displays in response to a communication action occurring with the
electronic trip unit, or any combination comprising at least one of the foregoing
functions.

4. The electronic trip unit of Claim 1, wherein the function identifiable by the module plug includes a communications function, a load monitoring function, a non-tripping ground fault alarm function, a flag function, a blank function, or any combination comprising at least one of the foregoing functions;

wherein the module plug identifies the blank function to the microprocessor via signal communication, thereby disabling access to the plurality of programs.

5. A method for accessing and activating an accessory function of an electronic circuit breaker, comprising:

entering a key into an electronic circuit breaker;

reading the key and comparing the key against a predefined key set;

unlocking access to a preprogrammed set of instructions for driving an accessory function; and

activating the preprogrammed set of instructions to drive the accessory function.

6. The method of Claim 5, wherein the entering a key further comprises:

entering a key having an identification number into an electronic trip unit of the electronic circuit breaker, the identification number being stored in an identification register.

7. The method of Claim 5, wherein the unlocking access further comprises:

unlocking access to a preprogrammed set of instructions in response to the entered key matching one of the keys of the predefined key set.

8. The method of Claim 7, wherein the unlocking access further comprises:

unlocking access to a preprogrammed set of instructions in response to the entered key containing an identification number that matches one of the identification numbers of the predefined key set.

9. The method of Claim 5, wherein the accessory function includes a communications function, a load monitoring function, a non-tripping ground fault alarm function, a flag function, a blank function, or any combination comprising at least one of the foregoing functions.

10. The method of Claim 9, wherein the blank function electronically disables access to the preprogrammed set of instructions for driving an accessory function.

11. An apparatus comprising:
a trip unit in removable signal communication with a module; and
a plurality of computer programs each when activated providing predetermined functionality to the trip unit;
the trip unit configured to receive from the module at least one program identifier associated with at least one of the plurality of programs;
whereby, receipt of the at least one program identifier by the trip unit initiates the activation of the associated one of the plurality of programs, thereby providing predetermined functionality to the trip unit.

12. The apparatus of Claim 11, further comprising a processor that executes activated ones of the plurality of programs.

13. The apparatus of Claim 12, further wherein the trip unit comprises a port for receiving the module.

14. The apparatus of Claim 13, wherein the plurality of programs includes a communications program, a load monitoring program, a non-tripping ground fault alarm program, a flag program, or any combination comprising at least one of the foregoing programs.